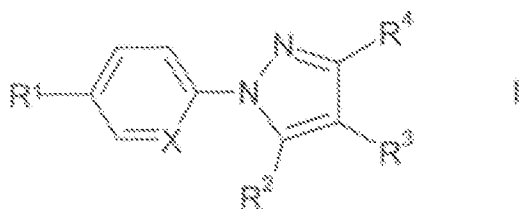


The listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (Previously Presented) A compound of formula I

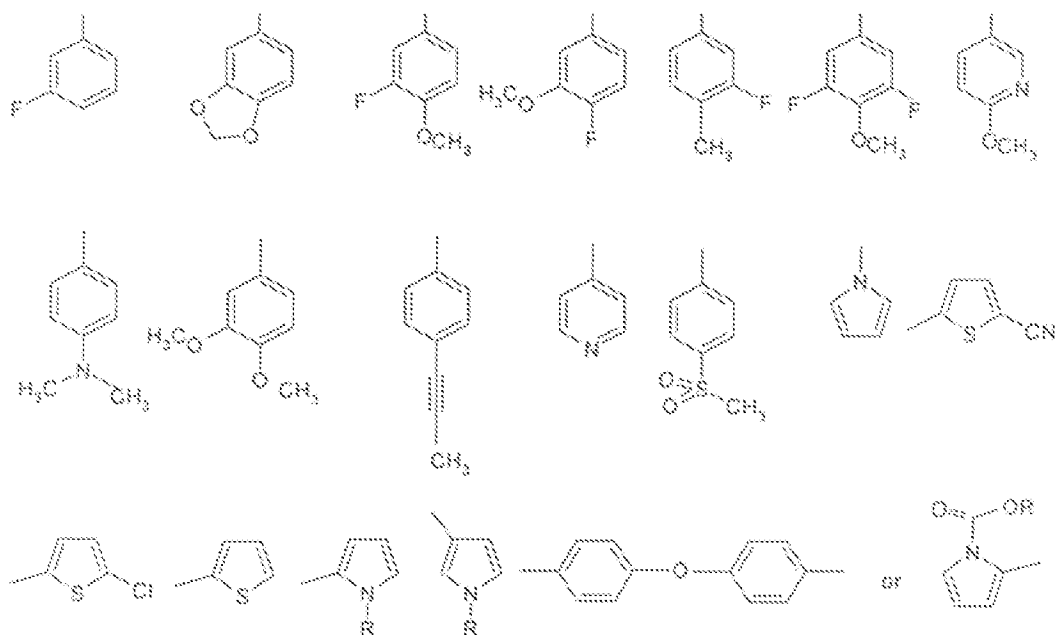


in which

- $R^1$  denotes  $(CH_2)_n$ Het,  $(CH_2)_n$ Ar, or cycloalkyl having 3 to 7 C atoms,
- $R^2$  denotes  $(CH_2)_n$ Het,  $(CH_2)_n$ Ar, or cycloalkyl having 3 to 7 C atoms,
- $R^3, R^4$  denote H,  $(CH_2)_nCO_2R^5$ ,  $(CH_2)_nCOHet$ , CHO,  $(CH_2)_nOR^5$ ,  $(CH_2)_n$ Het,  $(CH_2)_nN(R^5)_2$ , CH=N-OA, CH<sub>2</sub>CH=N-OA,  $(CH_2)_nNHOA$ ,  $(CH_2)_nN(R^5)Het$ ,  $(CH_2)_nCH=N-Het$ ,  $(CH_2)_nOCOR^5$ ,  $(CH_2)_nN(R^5)CH_2CH_2OR^5$ ,  $(CH_2)_nN(R^5)CH_2CH_2OCF_3$ ,  $(CH_2)_nN(R^5)C(R^5)HCOOR^5$ ,  $(CH_2)_nN(R^5)CH_2COHet$ ,  $(CH_2)_nN(R^5)CH_2Het$ ,  $(CH_2)_nN(R^5)CH_2CH_2Het$ ,  $(CH_2)_nN(R^5)CH_2CH_2N(R^5)CH_2COOR^5$ ,  $(CH_2)_nN(R^5)CH_2CH_2N(R^5)_2$ , CH=CHCOOR<sup>5</sup>, CH=CHCH<sub>2</sub>NR<sup>5</sup>Het, CH=CHCH<sub>2</sub>N(R<sup>5</sup>)<sub>2</sub>, CH=CHCH<sub>2</sub>OR<sup>5</sup> or  $(CH_2)_nN(R^5)Ar$ ,  
with the proviso that in each case one of the radicals  $R^3$  or  $R^4$  denotes H,
- $R^5$  denotes H or A,
- A denotes straight-chain or branched alkyl or alkoxy having 1 to 10 C atoms, alkenyl or alkoxyalkyl having 2 to 10 C atoms,
- Het denotes a saturated, unsaturated or aromatic mono- or bicyclic heterocyclic or linear or branched organic radical containing one or more heteroatoms which is unsubstituted or mono- or polysubstituted by A and/or Hal,
- Ar denotes a phenyl radical which is unsubstituted or mono- or polysubstituted by A and/or Hal, OR<sup>5</sup>, OOCR<sup>5</sup>, COOR<sup>5</sup>, CON(R<sup>5</sup>)<sub>2</sub>, CN, NO<sub>2</sub>, NH<sub>2</sub>, NHCOR<sup>5</sup>, CF<sub>3</sub> or SO<sub>2</sub>CH<sub>3</sub>,
- n denotes 0, 1, 2, 3, 4 or 5,
- Hal denotes F, Cl, Br or I, and

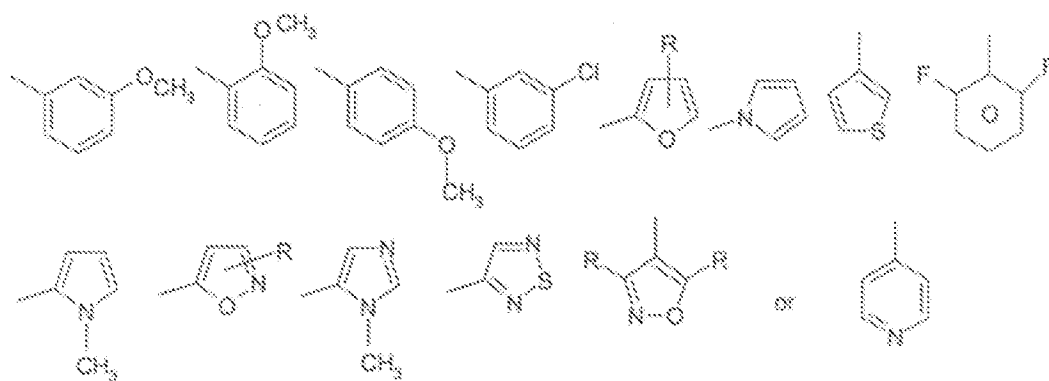
X denotes N, or

in the case where  $R^1$  denotes



in which R denotes H or an alkyl group having 1 to 6 C atoms,

and/or  $R^2$  denotes



in which R denotes H or an alkyl group having 1 to 6 C atoms,

alternatively denotes CH,

or an enantiomer, racemate, or a mixture of enantiomers thereof,

or a pharmaceutically acceptable salt thereof.

2. (Previously Presented) A compound of formula I according to Claim 1, in which R<sup>1</sup> denotes phenyl, 2-, 3- or 4-cyanophenyl, 2-, 3- or 4-fluorophenyl, 2-, 3- or 4-methyl-, -ethyl-, -n-propyl- or -n-butylphenyl, 2,3-, 2,4-, 2,5-, 2,6-, 3,4-, 3,5- or 3,6-difluoro-, -dichloro- or -dicyanophenyl, 3,4,5-trifluorophenyl, 3,4,5-trimethoxy- or -triethoxyphenyl, thiophen-2-yl or thiophen-3-yl.

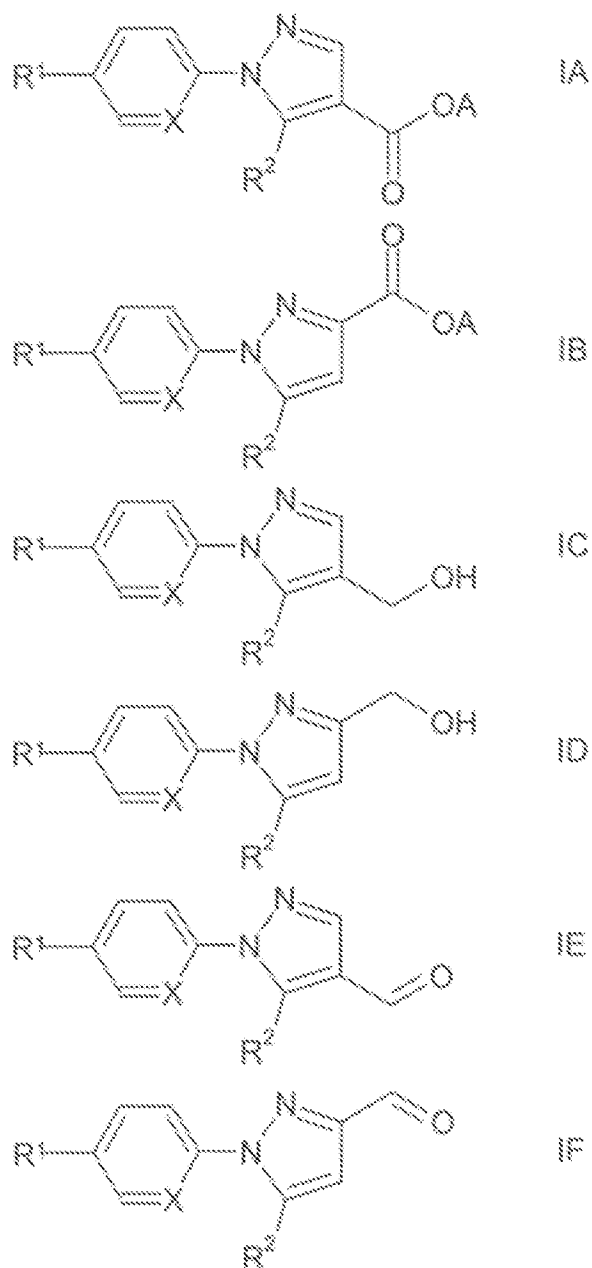
3. (Previously Presented) A compound of formula I according to claim 1, in which R<sup>3</sup> denotes H.

4. (Previously Presented) A compound of formula I according to claim 1, in which R<sup>4</sup> denotes H.

5. (Previously Presented) A compound of formula I according to claim 1, in which R<sup>2</sup> denotes phenyl, 2-, 3- or 4-cyanophenyl, 2-, 3 or 4-fluorophenyl, 2-, 3- or 4-methyl-, -ethyl-, -n-propyl- or -n-butylphenyl, 2,3-, 2,4-, 2,5- or 2,6-difluoro- or -dicyanophenyl, thiophen-2-yl or thiophen-3-yl, 2-, 3- or 4-pyridyl, 2-, 4- or 5-oxazolyl, 2-, 4- or 5-thiazolyl, quinolinyl, isoquinolinyl, 2- or 4-pyridazyl, 2-, 4- or 5-pyrimidyl, or 2- or 3-pyrazinyl.

6. (Previously Presented) A compound of formula I according to claim 1, in which X denotes N.

7. (Previously Presented) A compound of formula IA, IB, IC, ID, IE or IF

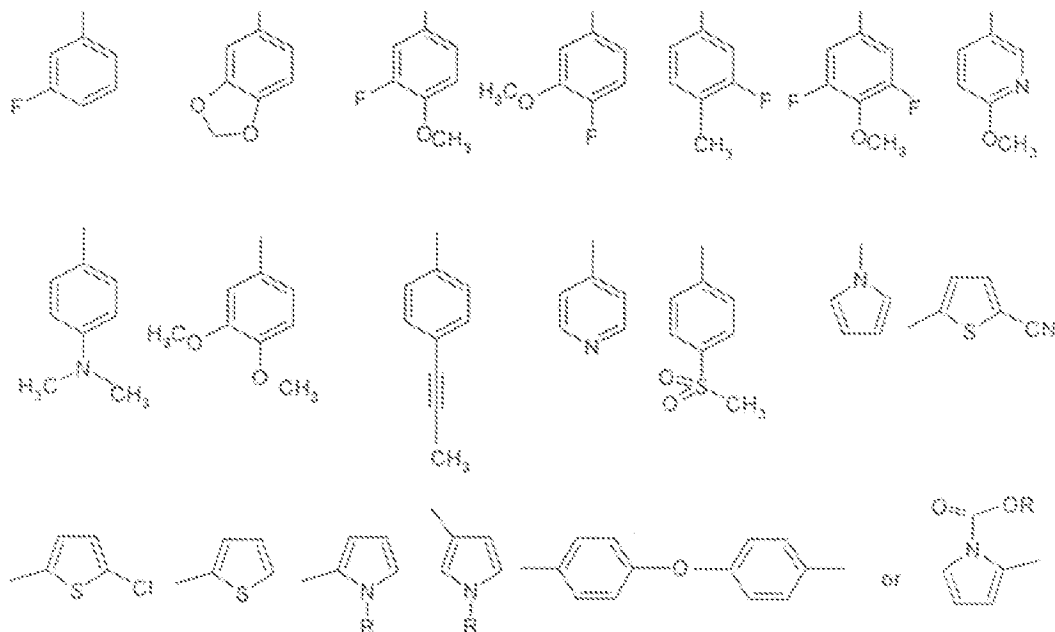


in which

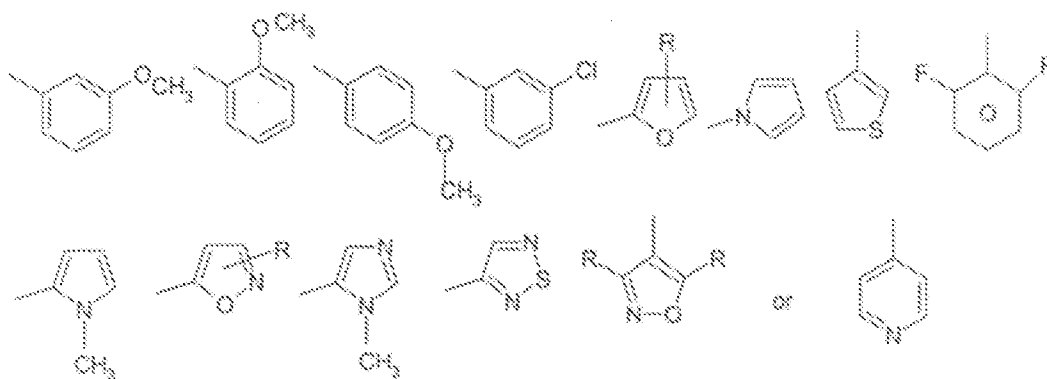
- $R^1$  denotes  $(CH_2)_n$ Het,  $(CH_2)_n$ Ar, or cycloalkyl having 3 to 7 C atoms,
- $R^2$  denotes  $(CH_2)_n$ Het,  $(CH_2)_n$ Ar, or cycloalkyl having 3 to 7 C atoms,
- A denotes straight-chain or branched alkyl or alkoxy having 1 to 10 C atoms, alkenyl or alkoxyalkyl having 2 to 10 C atoms,
- Het denotes a saturated, unsaturated or aromatic mono- or bicyclic heterocyclic or linear or branched organic radical containing one or more heteroatoms which is unsubstituted or mono- or polysubstituted by A and/or Hal,
- Ar denotes a phenyl radical which is unsubstituted or mono- or polysubstituted by A and/or Hal,  $OR^5$ ,  $OOCR^5$ ,  $COOR^5$ ,  $CON(R^5)_2$ , CN,

$\text{NO}_2$ ,  $\text{NH}_2$ ,  $\text{NHCOR}^5$ ,  $\text{CF}_3$  or  $\text{SO}_2\text{CH}_3$ ,  
 $\text{R}^5$  denotes H or A,  
n denotes 0, 1, 2, 3, 4 or 5,  
Hal denotes F, Cl, Br or I, and  
X denotes N, or

in the case where  $\text{R}^1$  denotes



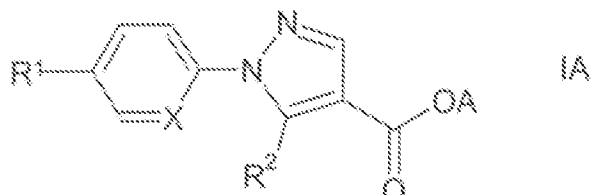
in which R denotes H or an alkyl group having 1 to 6 C atoms,  
and/or  $\text{R}^2$  denotes



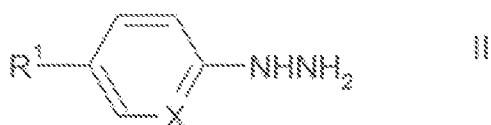
in which R denotes H or an alkyl group having 1 to 6 C atoms,

alternatively denotes CH,  
or a salt thereof.

8. (Previously Presented) A process for preparing a compound of  
formula IA according to claim 7



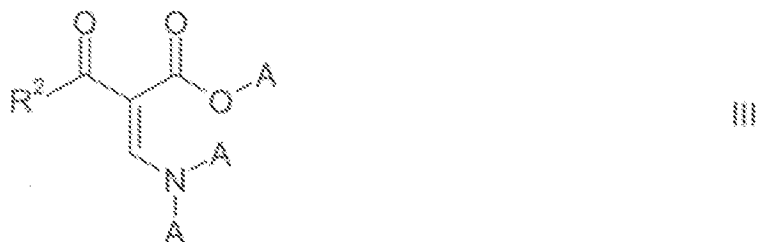
comprising reacting a compound of formula II



or an acid-addition salt thereof, in which

R<sup>1</sup> and X have the meanings indicated for the compound of formula IA,

with a compound of formula III



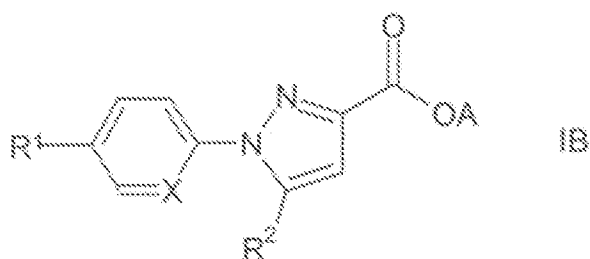
in which

A and R<sup>2</sup> have the meanings indicated for the compound of formula IA,

and/or

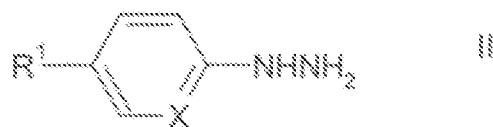
a basic compound of formula IA is converted into one of its salts by treatment with an acid.

9. (Previously Presented) A process for preparing a compound of  
formula IB according to claim 7



in which  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ , X and A have the meanings indicated for the compound of formula IB,

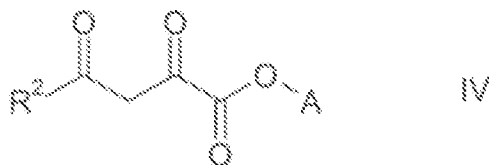
comprising reacting a compound of formula II



or an acid-addition salt thereof, in which

$R^1$  and X have the meanings indicated for the compound of formula IB,

with a compound of formula IV



in which

A and  $R^2$  have the meanings indicated for the compound of formula IB,

and/or

a basic compound of formula IB is converted into one of its salts by treatment with an acid.

10. (Previously Presented) A pharmaceutical composition comprising a compound of formula I according to claim 1 and a pharmaceutically acceptable carrier.

11. (Previously Presented) A method for the treatment of a disease which can be influenced by the binding of a compound of formula I to 5 HT receptors, comprising administering to a subject in need thereof an effective amount of a pharmaceutical composition according to claim 10.

12. (Previously Presented) A method for antagonizing a 5-HT receptor, comprising administering to a subject in need thereof an effective amount of a pharmaceutical composition according to claim 10.

13. (Currently Amended) A method for antagonizing a 5-HT<sub>2A</sub> ~~5-HT<sub>2A</sub>~~ receptor, comprising administering to a subject in need thereof an effective amount of a pharmaceutical composition according to claim 10.

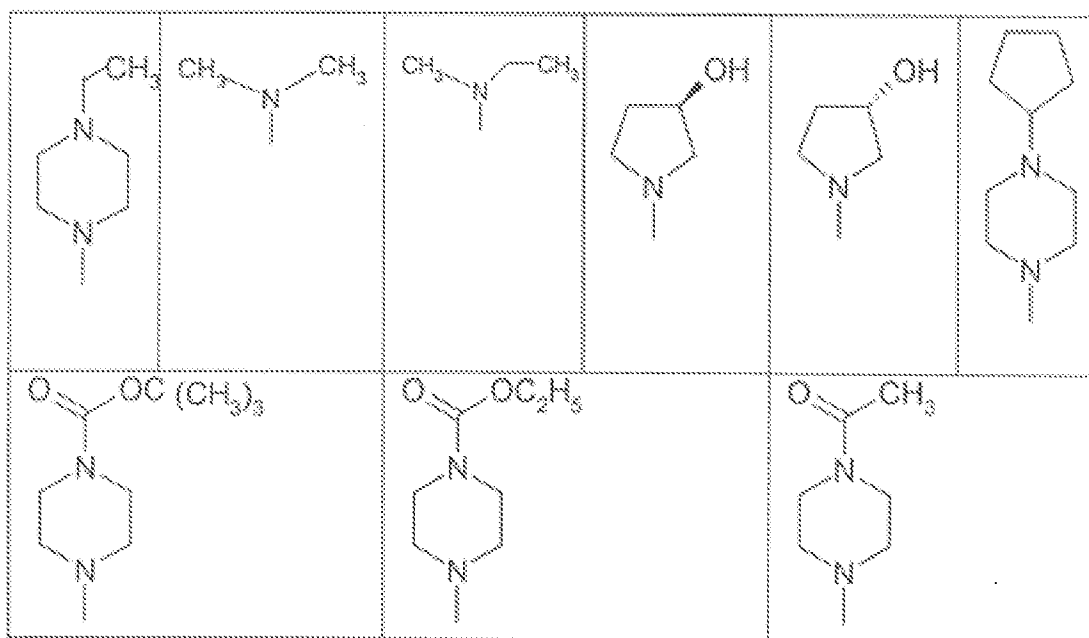
14. (Cancelled)

15. (Previously Presented) A process for preparing a pharmaceutical composition according to claim 10, comprising mixing together a compound of formula I and a pharmaceutically acceptable carrier.

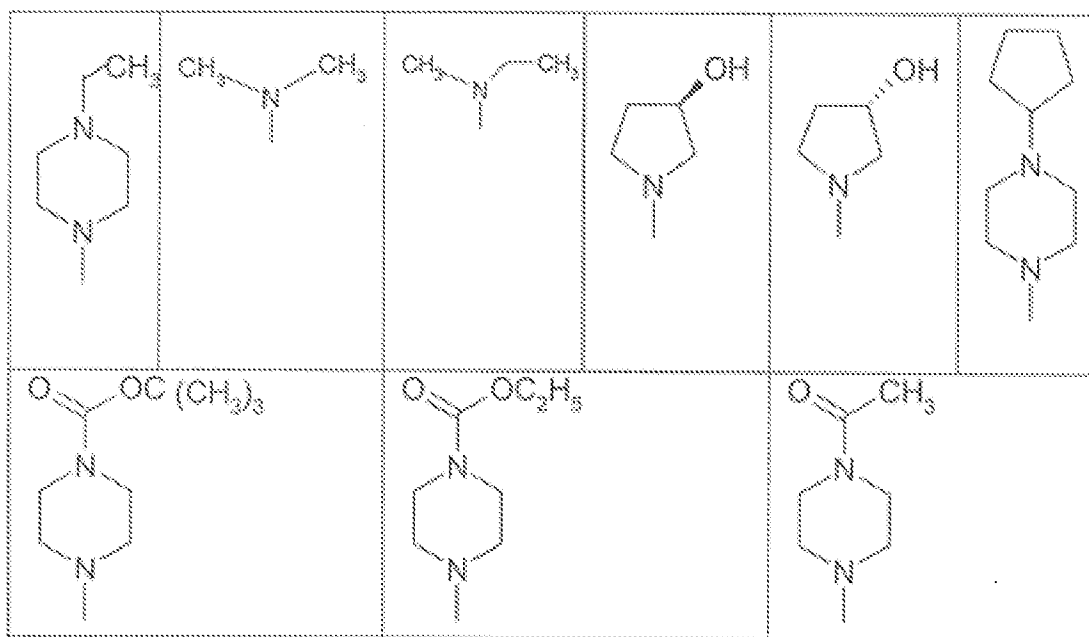
16. (Previously Presented) A method for the treatment of psychoses, a neurological disorder, amyotrophic lateral sclerosis, eating disorder, bulimia, anorexia nervosa, premenstrual syndrome and/or for positively influencing obsessive compulsive ~~obsessive compulsive~~ disorder, comprising administering to a subject in need thereof an effective amount of a pharmaceutical composition according to claim 10.

17. (Previously Presented) A compound of claim 1, in which Het is one of the following groups

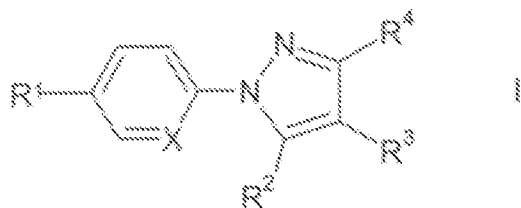




18. (Previously Presented) A compound of claim 7, in which Het is one of the following groups



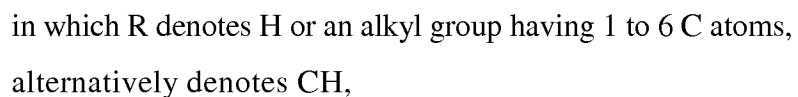
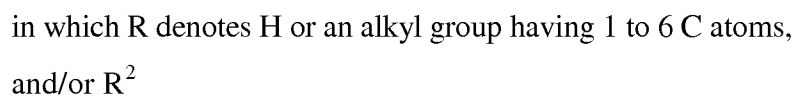
19. (Previously Presented) A compound of formula I according to claim 1



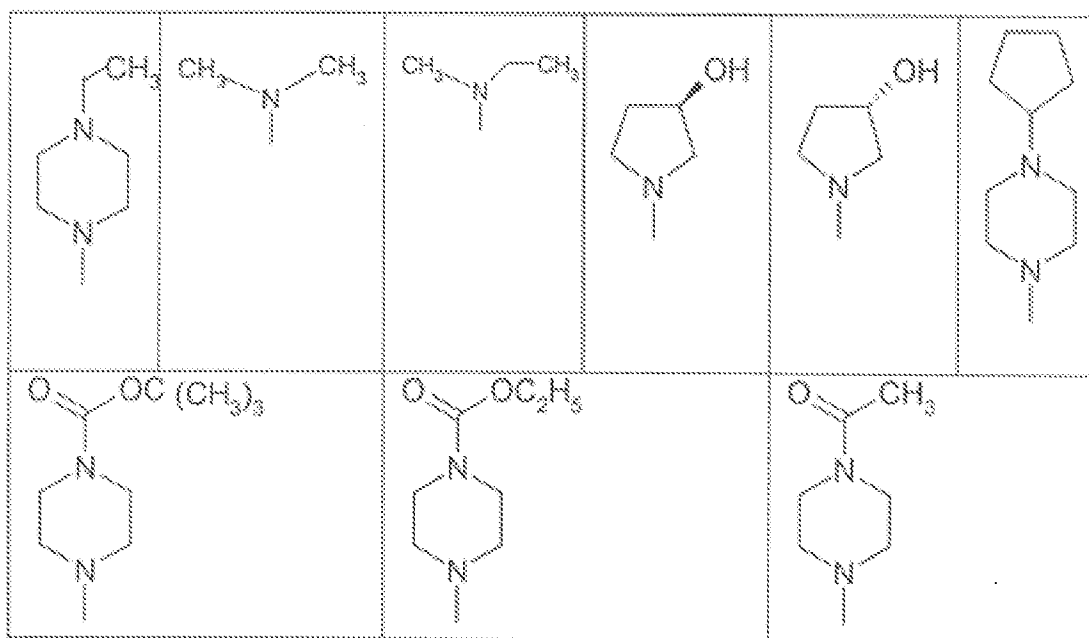
in which

- $R^1$  denotes  $(CH_2)_n$ Het,  $(CH_2)_n$ Ar, or cycloalkyl having 3 to 7 C atoms,
- $R^2$  denotes  $(CH_2)_n$ Het,  $(CH_2)_n$ Ar, or cycloalkyl having 3 to 7 C atoms,
- $R^3, R^4$  denote H,  $(CH_2)_nCO_2R^5$ ,  $(CH_2)_nCOHet$ , CHO,  $(CH_2)_nOR^5$ ,  $(CH_2)_n$ Het,  $(CH_2)_nN(R^5)_2$ , CH=N-OA, CH<sub>2</sub>CH=N-OA,  $(CH_2)_nNHOA$ ,  $(CH_2)_nN(R^5)Het$ ,  $(CH_2)_nCH=N-Het$ ,  $(CH_2)_nOCOR^5$ ,  $(CH_2)_nN(R^5)CH_2CH_2OR^5$ ,  $(CH_2)_nN(R^5)CH_2CH_2OCF_3$ ,  $(CH_2)_nN(R^5)C(R^5)HCOOR^5$ ,  $(CH_2)_nN(R^5)CH_2COHet$ ,  $(CH_2)_nN(R^5)CH_2Het$ ,  $(CH_2)_nN(R^5)CH_2CH_2Het$ ,  $(CH_2)_nN(R^5)CH_2CH_2N(R^5)CH_2COOR^5$ ,  $(CH_2)_nN(R^5)CH_2CH_2N(R^5)_2$ , CH=CHCOOR<sup>5</sup>, CH=CHCH<sub>2</sub>NR<sup>5</sup>Het, CH=CHCH<sub>2</sub>N(R<sup>5</sup>)<sub>2</sub>, CH=CHCH<sub>2</sub>OR<sup>5</sup> or  $(CH_2)_nN(R^5)Ar$ , with the proviso that in each case one of the radicals  $R^3$  or  $R^4$  denotes H,
- $R^5$  denotes H or A,
- A denotes straight-chain or branched alkyl or alkoxy having 1 to 10 C atoms, alkenyl or alkoxyalkyl having 2 to 10 C atoms,
- Het denotes a saturated, unsaturated or aromatic mono- or bicyclic heterocyclic or linear or branched organic radical containing one or more heteroatoms which is unsubstituted or mono- or polysubstituted by A and/or Hal,
- Ar denotes a phenyl radical which is unsubstituted or mono- or polysubstituted by A and/or Hal, OR<sup>5</sup>, OOCR<sup>5</sup>, COOR<sup>5</sup>, CON(R<sup>5</sup>)<sub>2</sub>, CN, NO<sub>2</sub>, NH<sub>2</sub>, NHCOR<sup>5</sup>, CF<sub>3</sub> or SO<sub>2</sub>CH<sub>3</sub>,
- n denotes 0, 1, 2, 3, 4 or 5,
- Hal denotes F, Cl, Br or I, and
- X denotes N, or

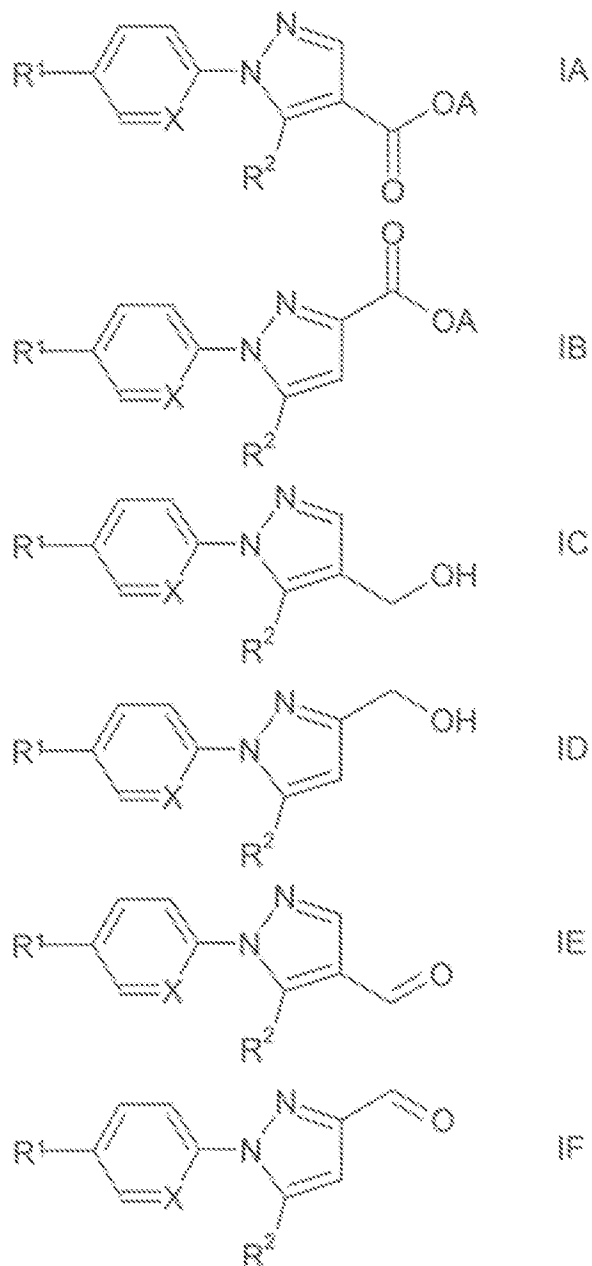
in the case where  $R^1$  denotes



20. (Previously Presented) A compound of claim 19, in which Het is one of the following groups



21. (Previously Presented) A compound of formula IA, IB, IC, ID, IE or IF



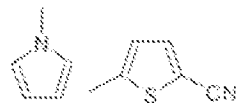
in which

- $R^1$  denotes  $(CH_2)_n$ Het,  $(CH_2)_n$ Ar, or cycloalkyl having 3 to 7 C atoms,
- $R^2$  denotes  $(CH_2)_n$ Het,  $(CH_2)_n$ Ar, or cycloalkyl having 3 to 7 C atoms,
- A denotes straight-chain or branched alkyl or alkoxy having 1 to 10 C atoms, alkenyl or alkoxyalkyl having 2 to 10 C atoms,
- Het denotes a saturated, unsaturated or aromatic mono- or bicyclic heterocyclic or linear or branched organic radical containing one or more heteroatoms which is unsubstituted or mono- or polysubstituted by A and/or Hal,
- Ar denotes a phenyl radical which is unsubstituted or mono- or polysubstituted by A and/or Hal,  $OR^5$ ,  $OOCR^5$ ,  $COOR^5$ ,  $CON(R^5)_2$ , CN,

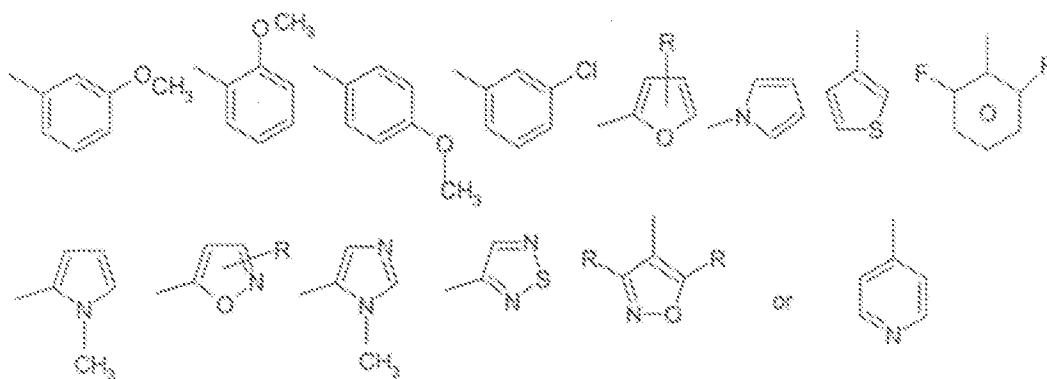
X

denotes  $N$ , or

in the case where  $R^1$  denotes



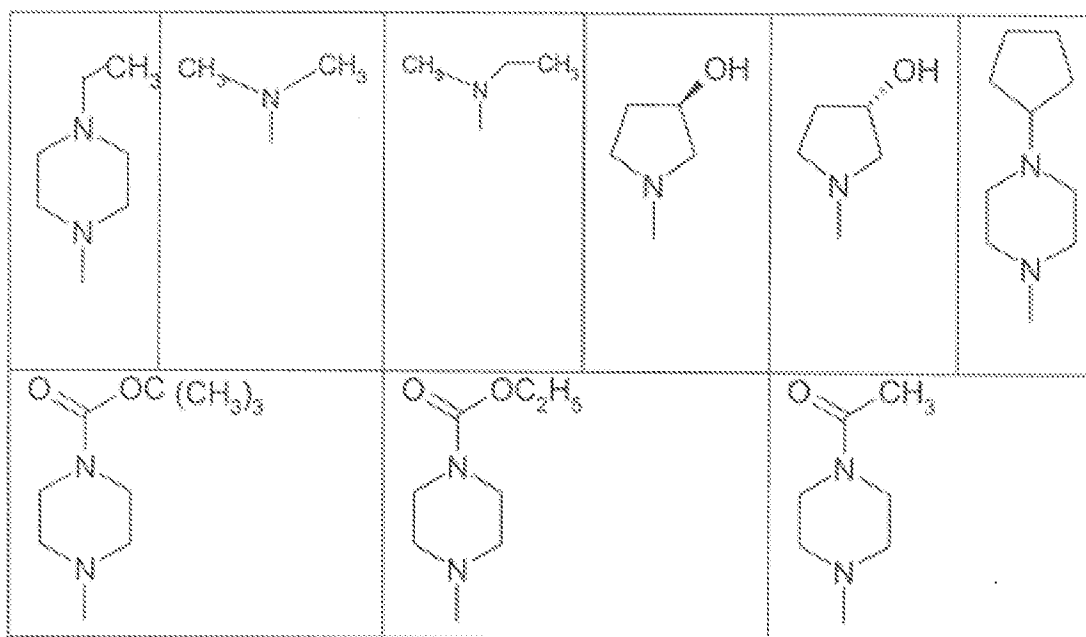
and/or  $R^2$



in which R denotes H or an alkyl group having 1 to 6 C atoms,

alternatively denotes CH,  
or a pharmaceutically acceptable salt thereof.

22. (Previously Presented) A compound of claim 21, in which Het is one of the following groups



23. (Previously Presented) A compound of claim 1, in which

$R^1$  denotes Het or Ar,

$R^2$  denotes Het or Ar,

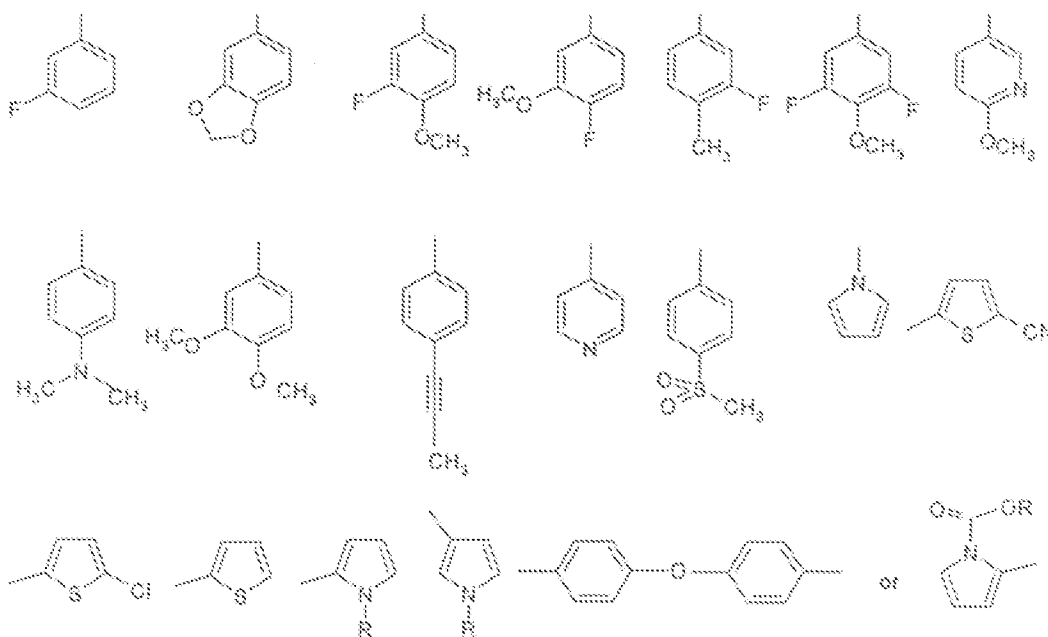
$R^3, R^4$  denote H,  $(CH_2)_nCO_2R^5$ ,  $CH=N-OA$ ,  $CH_2CH=N-OA$ ,  $(CH_2)_nNHOA$ ,  $(CH_2)_nN(R^5)Het$ ,  $(CH_2)_nCH=N-Het$ ,  $(CH_2)_nOCOR^5$ ,  $(CH_2)_nN(R^5)CH_2CH_2OR^5$ ,  $(CH_2)_nN(R^5)CH_2CH_2OCF_3$ ,  $(CH_2)_nN(R^5)C(R^5)HCOOR^5$ ,  $(CH_2)_nN(R^5)CH_2COHet$ ,  $(CH_2)_nN(R^5)CH_2Het$ ,  $(CH_2)_nN(R^5)CH_2CH_2Het$ ,  $(CH_2)_nN(R^5)CH_2CH_2N(R^5)CH_2COOR^5$ ,  $(CH_2)_nN(R^5)CH_2CH_2N(R^5)_2$ ,  $CH=CHCOOR^5$ ,  $CH=CHCH_2NR^5Het$ ,  $CH=CHCH_2N(R^5)_2$ ,  $CH=CHCH_2OR^5$  or  $(CH_2)_nN(R^5)Ar$ , with the proviso that in each case one of the radicals  $R^3$  or  $R^4$  denotes H,

$R^5$  denotes H or A,

A denotes straight-chain or branched alkyl or alkoxy having 1 to 10 C atoms,

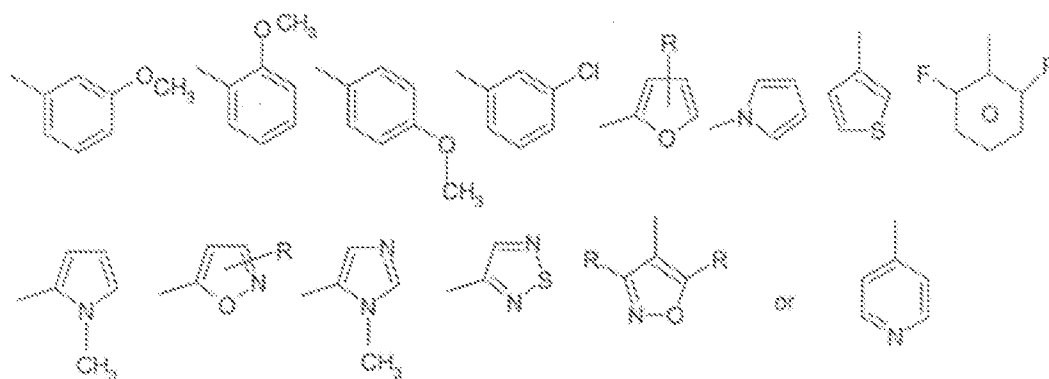
	alkenyl or alkoxyalkyl having 2 to 10 C atoms,
Het	denotes a saturated, unsaturated or aromatic mono- or bicyclic heterocyclic or linear or branched organic radical containing one or more heteroatoms which is unsubstituted or mono- or polysubstituted by A and/or Hal,
Ar	denotes a phenyl radical which is unsubstituted or mono- or polysubstituted by A and/or Hal, OR <sup>5</sup> , OOCR <sup>5</sup> , COOR <sup>5</sup> , CON(R <sup>5</sup> ) <sub>2</sub> , CN, NO <sub>2</sub> , NH <sub>2</sub> , NHCOR <sup>5</sup> , CF <sub>3</sub> or SO <sub>2</sub> CH <sub>3</sub> ,
n	denotes 0, 1, 2 or 3,
Hal	denotes F, Cl, Br or I, and
X	denotes N, or

in the case where R<sup>1</sup> denotes



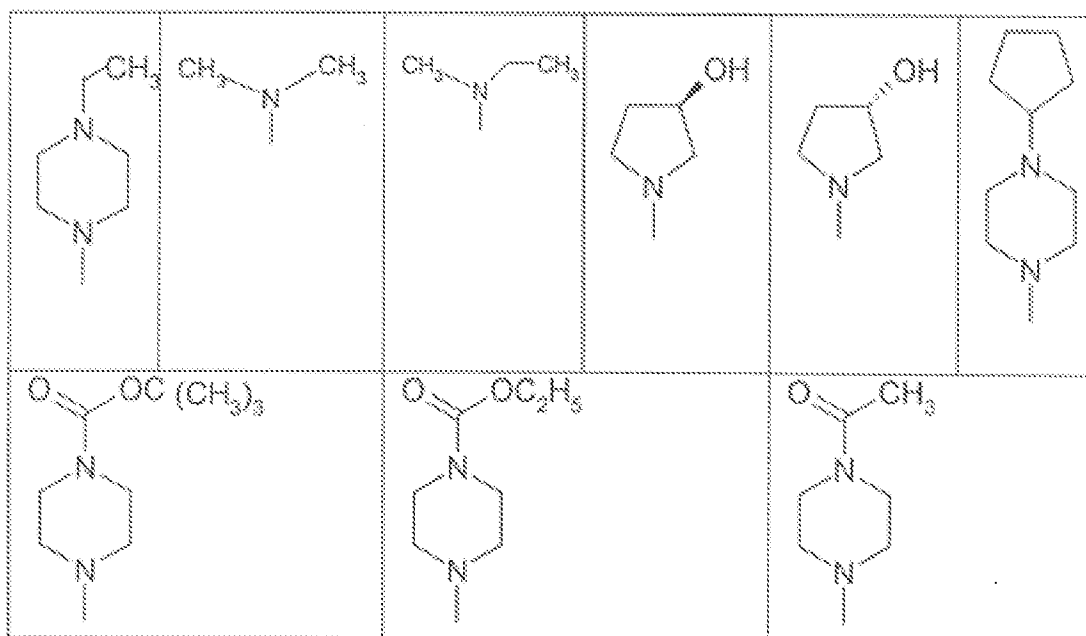
in which R denotes H or an alkyl group having 1 to 6 C atoms,  
and/or R<sup>2</sup> denotes





in which R denotes H or an alkyl group having 1 to 6 C atoms,  
alternatively denotes CH.

24. (Previously Presented) A compound of claim 21, in which Het is one of the following groups



25. (Cancelled)

26. (Cancelled)

27. (Previously Presented) A method for administering a pharmaceutical composition according to claim 10, comprising providing an effective amount of said pharmaceutical composition to a subject in need thereof.

28. (New) A method for antagonizing a 5-HT<sub>2A</sub> receptor in vitro, comprising administering to said 5-HT<sub>2A</sub> receptor an effective amount of a compound according to claim 1.

29. (New) A method for the treatment of psychoses, amyotrophic lateral sclerosis, bulimia, anorexia nervosa, premenstrual syndrome and/or for positively influencing obsessive compulsive disorder, comprising administering to a subject in need thereof an effective amount of a pharmaceutical composition according to claim 10.